BEHAVIOURAL INTERVENTION: A GUIDE FOR ELEMENTARY SCHOOL TEACHERS AND PARENTS

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EDREWORD

It has been widely felt by teachers, teacher educators and psychologists that some children come to school with behavioural problems which hamper their learning. These problems generally lead to disturbance in the classroom discipline and deterioration in overall academic programmes of the school. Such behaviours, if not identified and modified at an early stage, may become firm and not amenable to correction at later stages. In this direction, behaviour modification techniques could be successfully applied by teachers and parents to modify or correct the maladaptive behaviours of school children and enhance their learning and adjustment.

keeping in view the significance of such an intervention, this <u>Guide</u>, presents details about the development of effective interventions to deal with behavioural problems of school children using appropriate case studies and illustrations. It should help teachers and parents to modify or shape the behaviour of their children.

Dr.S.P.Sinha, Reacer, Department of Educational Psychology, Counselling and 6 loance has developed this material with the active involvement of experts in the field. It is worth

mentioning here that in the process of developing this material, elementary teacher-educators in different states of the country have been trained in behaviour modification techniques over the past few years through SCERTS/SIES/DIETS.

it is written.

A.K.Sharma Director NCERT

PREFACE

Universalization of education at the elementary level is one of the main priorities in India. Despite considerable resources and efforts, elementary education has not been able to achieve the desired goal. Amongst the various factors advanced, the maladaptive stimulation from the socio-cultural environment has contributed to the increase in problem behaviours both as school and at home. These behavioral proteins of children generally lead to disturbances in the classroom and cause deterioration in the overall academic programme of the class and the school.

Darwin Dorr (1972), a noted psychologist pointed to the evidence that some form of emotional and behavioural maladjustment exists among 30% to 70% of the school children and these problems may continue into adulthood and hence need to be treated or corrected in the early stages. Such correction would lead to improvement in the teaching-learning situation in the elementary school settings. However, treatment or correction of a problem behaviour necessarily requires application or effective behaviour intervention programme.

The name for a guide of Luch a behavioura. Intervention programme, illustrated with case-studies that could help elementary school teachers and parents in modifying their children's undestrable behaviours, has long been felt by school teachers, teacher educators and psychologists.

Further more, various teacher training, extension programmes and the follow-up and feed back reports from the participants of different states of India also indicate that the above target group need this kind of a document. Also, this is the area in which relatively less effort has been made in our Country to provide such a guide, and the present work is an attempt in this direction.

The objectives of this ourge are:

- To nelp teachers and parents in manding different behavioural problems (Psychological and educational) of children, encountered or observed in the nome and classroom situations.
- To improve the existing situation in the elementary level education and to facilitate teaching and learning.

In order to develop this guide, the first step was to prepare a comprehensive list of problem behaviours commonly observed in elementary school children, on the basis of (A) a detailed survey conducted on elementary school teachers and parents and (B) the available recorded literature. Of these, only eighteen behaviour problems which were observable, measureable and could be modified by teachers and parents were taken up for developing behavioural intervention programme.

During the survey, an oper-ended questionnaire was administered to teachers (50 from Public schools & 50 from Munic-ipal Corporation schools in Delni to fini out the methods that they usually employ in the classroom situations for managing problem behaviours of children.

A content analysis and behavioural analysis were carried out on the responses obtained from teachers. Only those problem behaviours were included, in which teachers and parents could easily apply the intervention programme to modify the behaviours. These intervention programmes were based on behaviours. These intervention programmes were based on behavioural principles, and gave direction to the adoption of different intervention programmes for modifying the different behavioural problems.

The expert group which met in December, 1991 discussed thoroughly and in detail the inclusion of the selected beautiour problems for which intervention programmes have to be developed, and decided unanimously that the same were exhaustive in hature and were of the unaminious opinion that these 18 problems were also commonly observed in school setting. These problems (N=18) are reproduced below in the box.

(1)	Often comes late.	(16)	Incapable of working in dependently.
(2)	Stares out of window.	(11)	Comes to teacher's table frequently.
(3)	Does not pay attention to the teacher.	(12)	Leaves the seat without teacher's permission.
(4)	Withdrawn behaviour (keeping aloof/avoidance).	(13)	Interrupts teaching in the class.
(5)	Speakes out of turn.	(14)	Uses abusive language.
(6)	Makes noise.	(15)	Bites.
(7)	Over talkative.	(16)	Hits.
(8)	Does not raise hand in the class.	(17)	Creates problems in the playground.
(9)	Does not complete homework.		Fights frequently.

While formulating behavioural intervention programmes, care was taken to ensure that these programmes are not ambiguous but intelligible to teachers and parents. Also the scientific base of the behavioural procedures were retained.

The plan of the present book is as follows:

Chapter—I deals with an introduction to behavioural intervention programmes required for the commonly observed behaviour problems.

Chapter-II, presents the process of behavioural analysis and measurement issues.

Chapter-III gives a detailed account of behaviour modification procedures and their theoretical basis.

Chapter-IV, deals with the process of development and applications of the Behavioural intervention programmes.

Chapter V - presents Case Studies to help readers to have a practical knowledge of the scientific `hnow-how in managing the behaviour problems.

It is hoped that this book would meet the needs of the teachers and parents in appropriately handling the behavioural problems of children.

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CHAPTER-I

INTRODUCTION

In the present era, children are being brought up in complex environments, where more than home, other external factors also influence the make up of their mind and body. Undesirable behaviour patterns creep in despite attempts of healthy interactions between parents and their growing children. Hence, early detection and modification of these problem behaviours can prevent children from developing mental health problems and emotional disturbances in additioned addithood.

There are a number of reasons why children are often not identified as having problem peabylour until they reach school age. Important among them are behaviours which are at home but not in the classroom. Also, problems tolerated which go unnuticed/ignored during pre-school years may become the child is in the school. Thus, early more obvious when modification of problem behaviour of children detection and essential. Many problem behaviours become difficult to change, in left untreated. areas Also many child solife, such as emotional, physical, social etc., are tο continue. adversely attented if the problem is allowed Many problems are not so easily and routinely detected by parents/teachers. The responsibility of identifying the existing or potential, social, psychological and academic problems rests with the teachers and parents because they have an unique opportunity to observe the child in many diverse situations. The teachers and parents observe the child's reactions to success and failure, to academic and social demands, to structured and non-structured situations, and to prers and other adults. In essence, the teachers and parents often know the child better than any one else. Thus, it is clear that teachers and parents have to play an important role in detecting and modifying the malidaptive behaviour of children in the school and home settings at the elementary stage.

It is a common notion that punitive methods are effective in mending children's behaviour. However, this notion has changed over time. Research has proved that behaviour is effectively controlled through love and affection rather than by punishment. The behavioural approach offers effective procedures for bringing about dramatic changes in undesirable behaviours.

The following pattern of interaction should be kept in mind while adopting a behaviour modification programme in the natural environment. A model is presented below:

Opinion from the 'Expert' (Psychologist) to be taken by the 'Mediator (i.e. the parents, teachers or any other significant persons living with the child, regarding the adequacy and applicability of the behavioural intervention programme to be used with the concerned child. After understanding the procedures of the intervnetion, the same should be applied to the child, and at intervals, a review should be made with the expert, to ascertain if the program was properly administerd and if there is any need for modification of the programme.

There is no doubt that behavioural methods can be used to reduce disruptive and off-task behaviours, as well as increase the appropriate behaviours and work output of the pupils. There is little doubt that for effective teaching to take place appropriate classroom climate is essential. Classroom management of children's behaviour is important for relevant learning of classroom activities. To put it more simply, the quality and content of lessons may be irrelevant if the children are not attending to the classroom activities or, even worse, if they are disruptive in the classroom.

Teachers, teacher-educators and psychologists have noted that in a number of cases the behaviours of children are not conductive to either for their optimal learning or for effective teaching. These behaviours of children generally lead to disturbances in the classroom climate and deterioration in overall academic programme of the school.

The role of teachers is not merely to transmit a body of knowledge and stills provided in the curriculum but also to correct maladaptive beauviours in children and develop in them desirable values and attitudes. Towards achieving this, the information available in the area of behaviour modification is likely to be of great value. As there are very few qualified behaviour modifiers in our country, if the teachers are made aware of the theory and practice of behaviour modification procedures as well as are trained to apply the same in the classroom situations, it would go a long way in making the teaching—learning process a success.

It is well known that some of the new and inexperienced teachers in the beginning may feel diffident in controlling children in their classes as well as the maladaptive behaviours of the children assigned to them. It is quite likely that the methods and procedures they use in trying to manage these children, may in fact turn out to be a condition where they actually are implicitly encouraging undesirable classroom behaviours without knowing it. Through proper training and supervised practice in applying behavioural procedures, the new and inexperienced teachers may not only be able to control the maladaptive being viours in children but also help them develop more desirable patterns of beahviour.

While taking a decision for modifying a particular behaviour the following four important points should be kept in mind:

- 1. Specify the target behaviour to be modified which is considered to be undesirable.
- To consider a behaviour maladaptive and requiring modification, the concerned behaviour must occur with sufficient frequency; it should not be occasional.
- 3. The behaviour must have been persisting over a period of time resulting in being hurtful to the child and/or his/her enviornment.
- 4. The behaviour adversely affects the child's future healthy development and poses serious problems at later ages and developmental periods.

Before deciding the modification of a behaviour, the modifier should find out the following facts.

- Whether the concerned behaviour is an excess behaviour, when considered in relation to the prevailing social norms. For example out of seat behaviour in a classroom.
- ii) Whether the behaviour is a deficit one. For example, 'not answering questions in the classroom.
- in) Whether the child is having some good habits which can be utilised as 'assets for modifying the maladaptive behaviour. For example, helpfulness in organising classroom activities such as painting, singing etc.

- iv) Whether the environment is responsible in causing and perpetuating the undesirable behaviour. For example, teacher giving attention to a hyperactive child'.
- v) Whether the history of the undesirable behaviour has been unwittingly reinforced by others in the environment. For example, over indulgent parents making the child develop extreme dependence.

Though the procedures given in this guide may provide facts, knowledge and exposure to behaviour modification, the teacher cannot become totally competent to deal with severe emotional problems. All that he should do is to correct, reshape and help the child to develop a more adaptable classroom behaviour, as well as desirable habits and behaviour.

These behaviour modification procedures can be learned and used by the teacher in the day-to-day classroom and school situations with benefit to the child and towards effectiveness in teaching. These are applied principles and procedures which bring about visible and concrete changes and if implemented in the school, changes the whole atmosphere of the school.

Some of the commonly encountered behaviour problems in school/classroom

Teachers probably observe in the class a few students whose behaviour is not what one would like it to be. For example, students who are chronic late comers; or extremely quiet and withdrawn; do not complete their homework; roam around from their

seats; disturb other children in the class etc. It is such types of behaviours that the teachers probably want to correct and modify because these behaviours are not conductive to effective teaching-learning process.

Also there can be more serious behavioural problems such as aggression and expression of hostility. Teachers are concerned about this type of beahviour to a greater degree than the quieter type of maladaptive behaviour because these behaviours are both non-productive and destructive and vitiate the classroom climate. The above type of disruptive behaviour needs modification, as disciplining the behaviour through punishment is relatively less successful and a good deal of time is spent disciplining children.

It should be remembered that teachers are concerned with a behaviour which is problematic and needs to be changed. Behaviour modification is a set of procedures with a positive orientation. These procedures have proved to be successful in combating a wide variety of problem behaviours which the teacher may encounter amongst children in the school. These procedures might best be described as an approach that is based on learning theory and its primary objective is to decrease undesirable behaviours and to increase as well as maintain desirable behaviours.

Rehaviour modification procedures and their 'know-how' can be successfully applied to the classroom environment by teachers to shape the behaviour of the children. These vary from simple to highly complex procedures and include a wide range of

options for mandling the various problem behaviours encountered by elementary school reachers in children in their classrooms. The various intervention procedures based on behavioural principles that can be used by elementary school teachers are extinction, time-out, mild punishment and systematic desensitisation.

After decreasing the undesirable behaviour in children, the teachers would also need procedures to build-up or promote new, adaptive and desirable behaviour. The specific procedures that could be used by teachers for the purpose are: contingency management, contingency contracting, tolen-economy. snaping, chaining and modeling.

The new concern of the weather is to understand objectively which heatwrour actually needs to be shaped or modified. For this purpose, believiour needs to be defined as "that which some one dues that another can see". The behaviour must be defined or described in such a way that teachers as well as others know precisely which behaviour is being considered. The description of the behaviour should be such that it another teacher observes the same behaviour, he should be able to describe it on similar lines. Thus, the behaviour has to be a problem behaviour which is visible, concrete, definable, observatible and recordable.

After clear and unambigious description of the concerned behaviour, suitable behaviour modification procedures could be selected and used to change or modify the defined malacaptive behaviour. These procedures, have been applied successfully to a wice ange of problem behaviours occurring in all

types of school situation, from nursery to elementary school levels. The teachers and parents can be trained to acquire these skills and apply the same for changing the maldaptive behaviours of children.

How to use this guide:

The scientific procedures of beahviour modification for modifying the common behaviour problems of elementary school students given in this guide have been made simple, easily understandable and illustrated with case studies. The following vital points should be borne in mind for using this guide, by the teachers, parents and significant others:

- 1) This is only a guide book. Hence, the users should use their ingenuity to modify or alter the procedures mentioned in it, to suit the individual child's needs. At the same time, the scientific nature of these procedures should not be lost.
- 2) Before starting the intervention, one should be convinced that the problem behaviour is a persistent one and not a one-time occurrence. The behaviour should cause sufficient disturbance to the concerned individual and/or others, so as to warrant intervention.

- 2) A thorough, proper and adequate behavioural analysis should be carried out by the concerned persons, that is, parents, teachers and others (who will be implementing the programme of behaviour modification) before initiating the intervention, as well as for deciding the procedures to be used, and follow-up to be adopted.
- 4) Repeated interaction between the parents, teachers, and others is a must for effective use of this guide.
- This guide is meant to help change the attitudes of teachers and parents from a negative to positive one. For example, punishment which is considered by teachers as an effective method for changing children's behaviour could be changed to holding an attitude that punishment should be the last resort for changing behaviour. While attitudes cannot be changed easily, frequent interactions, with positive feed backs (success stories of students who changed their behaviour) help in changing even the most resistant attitudes.
- 6) The skill of selecting the procedure and applying the same effectively will depend on the motivation and creativity of the concerned user.
- 7) Institutions, like 'District Institute of Education and Training and College of Education are advised to use this guide in the training of teachers.

- B) The guide is intended to help the teachers and parents to deal with the so called "normal students" with problem beahviors. In case of severe "_bnormal problem behaviours" they should be referred to the Clinical Psychologists or other experts.
- 7) The users are also advised to translate this guide into their local language for facilitating teaching and training.
- 10) This guide provides knowledge about the pehaviour modification procedures. More knowledge can be obtained through reading the books on behaviour modification and getting training from behaviour modification experts. The names of institutions and experts are given in the Manual of Penaviour Modification for Elementary Teacher-Lducators and School Teachers' (1991)
- 11) The difficulties faced by the users should be communicated to the N.C.E.R.T. so that a better edition of this guide may be brought out.

CHAPTER II

BEHAVIOURAL ANALYSIS AND MEASUREMENT

Before embarking on the tasks of behaviour modification, it is a prerequisite to analyse the behaviour to be modified in terms of the context in which it occurs and also measure the intensity of the behaviour. For this, the following points have to be kept in mind. For analysis, measurement, and modification of the behaviours of elementary school children, one must follow the steps given below:

- (1) Select a target behaviour;
- (2) Collect and record baseline data;
- (3) Identify the current contingencies:
- (4) Use appropriate reinforcers;
- (5) Implement and record the intervention data;
- (6) Reduce external contingencies and
- (7) Use checks or review the programme.

1. Selecting a target behaviour:

The initial step in the behaviour modification process is the identification of the target behaviour. In most classroom situations, it is not difficult for the teachers to identify a variety of behaviours needing

change. For example, the teacher may observe: (1) Ram does not communicate verbally; (b) Mohan should increase his reading skill; (c) Radha speaks out of turn etc. All these are target behaviours that teachers can identify in the classroom.

It is generally recommended that the beautiour modifier should not attempt to change more than one behaviour in an individual, or of a group at a time as attempting to change several beautiours simultaneously would invariably result in inefficiency. Therefore, it has been advocated that individual and group behaviours needing modification should be arranged in the order of priority. The teacher then should systematically work out the priority list, with the most important to the least important of the significant target behaviours. The importance of modifying a specific behaviour should be determined on the basis of its effect on the child's functioning. Further, selection of a behaviour for modification, should be governed by the following considerations: (i) frequency, (ii) duration, and (iii) intensity of the behaviour concerned.

Let us first consider the frequency of the occurrence of a behaviour. Some behaviours occur so frequently that they obviously require a behaviour change programme. Examples of such behaviours are: staring out of the window, coming to teacher of table too frequently, fighting too often etc. If a target behaviour has been identified as occurring frequently, the teacher should next consider the duration of that behaviour. That is

whether it has been there for just a few days, or for weeks or months, etc. Finally, the teacher must consider the intensity of the behaviours. For instance, some behaviours although unacceptable are relatively mild and do not generally interfere with the classroom process or the individual child's overall functioning. On the other hand, there are behaviors though infrequent, are so intense that they are extremely destructive and hostile in nature. Not only do they adversely affect the individual's overall functioning, but they also interfere with the classroom programmes and group activities. Such behaviours have to be essentially modified.

After these factors have been considered and the target behaviours selected, the teacher/parent must decide the nature of behaviour change process. There are three possible directions a behaviour may follow as a consequence of an intervention. The behaviour may increase, decrease, or be maintained. The majority of behaviour change programmes are expected to increase the desirable behaviours and/or decrease the undesirable behaviours. Teachers can easily select behaviours which they wish to increase or decrease. However, the implementation of behaviour modification programmes to maintain acceptable behaviours has not been However, if the newly learned acceptable behasystematised. viours have to be maintained, teachers should systematically reward such behaviours, and put in simultaneously more efforts to prevent the occurrence of undesirable behaviours through nonrewarding of the undesirable behaviours.

2. Collecting and recording of baseline data:

Before starting the intervention, the behaviour is to be observed and recorded as it occurs in different situations and such records are called the baseline data. These data on behaviour are the base or starting points with which the teacher can compare the measurements of changes in behaviour, brought about by the behavioural intervention programme.

There are a variety of methods for observing data. The recommended baseline method for carding teachers/parents is direct observation of the behaviour of child in the environment in which it occurs. The teacher/parent to obtain such data by means of a time-sampling 15 advised technique, in which one observes a particular maladaptive response pattern of behaviour and its frequency in a child within a fixed interval of time. With the time-sampling technique the teacher first selects the behaviour to be observed and then selects the period of time that can be devoted to observe behaviour each day during the baseline phase. Each occurrence of the target behaviour during the observation period is tallied or recorded.

Some baseline data be measured by counting the number of times a behaviour occurs. For example, how many times did the student answer questions asked by the teacher. Baseline can be

measured by observing the length of time or duration of a particular behaviour. Another way to assess the outcome of behaviour is by counting the successful responses given out, for example, the number of problems in inithmatic solved correctly or the scores obtained on a reading test, or other classroom test scores.

To obtain meaningful baseline data, the teacher must engage in two activities; counting the behaviour and charting the behaviour. Counting the behaviour means enumerating the number of times the behaviour occurs in a given period of time. Charting the behaviour means preparing a visual display of the enumerated behaviour, in a graphic form. These two processes are of paramount importance in the behaviour change process.

3. Identification of the current contingencies:

Contingency management is one of the important methods in behaviour modification. The relationship between the response and the reintorcement is called contingency and when contingency is controlled or managed, it results in behaviour modification.

In order to implement intervention, the teacher should identify the various factors in the environment which help to maintain the behaviour of the child. Such an identification will help in altering these factors or introducing new ones, so as to

increase or eliminate the concerned behaviour. Recording of such behaviours and their description with contingent circumstances in which they occur will give practical help in removing or adding reinforcers according to a plan.

4. Using appropriate reinforcers:

The effectiveness of behavoural intervenion programme depends on the nature and schedules of reinforcement. It is essential that teacher should identify potential reinforcers for the child, whose behaviour is to be modified. There are several procedures recommended for identifying reinforcers which have the potentiality to change the behaviour. These are (a) use of a reinforcement list, (b) a direct interview, (c) a parent or teacher interview about the child, and (d) direct observation.

(a) Use of reinforcement list:

Each child has certain unique personal likes and dislikes. The reinforcer must be selected and decided in consultation with and by observation of the child whose behaviour is to be modified.

The reinforcement list is designed to assist the teacher in eliciting the child's reward preferences. The child is asked to select reinforcers from consumable objects, tangible objects, or social reinforcers which he/she likes to have.

Receiving verbal praise, getting personal time with the teacher, getting a hand shake, pat on the back, sitting next to the teacher at lunch, playing with a classmate of choice, etc. are included among social reinforcers. The teacher should be aware of the needs, likes and dislikes of the child while preparing or sampling reinforcers because the child does not know or simply cannot express what is desirable for him or her.

(b) A direct Interview with child:

Interviewing a child to determine what is desirable as a reward is frequently productive. The interview should be structured and the reinforcement list may be used to stimulate discussion. The child is encouraged to express and discuss his/her desires. The child's responses will be of great help in attempting to pinpoint the items and activities to be used as reinforcers. There is evidence to indicate that when a child is involved in decision making concerning important ingredients of his or her programme the overall quality and rate of the programme is enhanced.

Many children initially have difficulty in making reasonable selections because of a lack of experience in decision making. In this situation, the interview is in itself a learning experience for the child.

The disadvantage of the technique is that it is time consuming and its success depends on, (i) the child sability to communicate with the interviewing adults and (ii) the teacher sightly as an interviewer.

(c) Interviewing Parent/Teacher about the child:

To overcome the problems mentioned in (b) above, the teachers and parents could be interviewed regarding the child. This procedure can be an excellent learning experience for parents and teachers as it can sensitize them to the importance of meaningful rewards which increase the responses of the child without having any bias about the child s likes and dislikes.

(d) <u>Direct observation</u>:

The most productive strategy for identifying effective reinforcers is direct observation of the child. This requires the teachers/parents to observe and record the child's self selected activities in a variety of situations such as at playground, in the classroom, during structured time and during free time. These self selected activities can be utilised during the intervention as reward or reinforcer.

Although several methods of identifying reinforcers have been discussed, it has been found that direct interview with the child and direct observation of the child are effective and reliable methods in identifying desirable reinforcers.

5. Intervention and recording of the data:

Intervention data are as important as baseline data. It provides a measure for comparing baseline behaviours with the changes brought about through intervention.

The progress of the acquisition of a behaviour should be very accurately recorded in terms of the day, date, number or times ifrequency), that the behaviour occurred, the circumstances under which it occurred and consequences of that changed behaviour. All these will indicate whether behaviour changes are actually taking place and that too whether in the desired direction.

The study of a detailed record will show whether the reinforcers are actually reinforcing. If regular changes are occurring in the right direction, the record would indicate the progress of the modification programme until the final target behaviour is reached.

6. Reducing the external contingencies:

Once the final target behaviour has been established and is occurring at a fairly stable rate, the contingencies (reinforcers) controlling the behaviour should be gradually reduced. For example, by using a less regular and less frequent rate of reinforcement, one can substitute continuous reinforcement by less frequent and random reinforcement. This in turn helps in fading of the responses that are considered undesirable.

7. Checks:

If the final target behaviour begins to diminish or if unwanted behaviour begins to reappear, a return to step 3 and 4 should be made and the new contingencies introduced should be

studied. The record maintained would show whether behaviour levels have changed or not. In case no change has occurred, the plan might have not been really carried out consistently or the reinforcers have not been chosen correctly.

Thus, in order to make behavioural procedures effective, it is recommended that the teacher should carefully follow each step in the behaviour change process as presented above.

CHAPTER-III

BEHAVIOUR MODIFICATION PROCEDURES

Compared to other psychological methods of intervention, the behaviour modification approach has certain major advantages. (a) It is based on principles of learning that can easily be taught to school teachers/parents. (b) Its effectiveness can be measured by objective data rather than subjective impressions (c) It strives to find out correct deficiencies with the help of behavioural analysis. Thus, behaviour modification appears to be one effective mode of intervention in problem behaviours in children. It represents a collection of procedures that can be used by teachers/parents directly in dealing with problem behaviours.

These behavioural procedures are presented in this chapter.

(a) Decreasing Undesirable Behaviour:

There are four basic ways of decreasing the frequency of undesirable behaviour; these are (1) Extinction, (11)Punishment, (111) Time-out and (1v) Systematic Desensitization.

(i) EXTINCTION:

This means removal of a behaviour by not rewarding it. The process of discontinuation of the reinforcer of a behaviour, that has previously been reinforcing it, leads to extinction. This is

most frequently used to reduce undesirable behaviours like crying, temper-tantrum, aggression, making noise, etc. Normally the
parents show inappropriate reactions. This serves as reinforcers
to undesirable behaviour and it gets strengthened. To extinguish
such behaviour the inappropriate reinforcing actions and reactions of teachers and parents are to be discontinued. The child
is neither given his desired objects nor any attention paid to
him following his undesirable activities. This strategy extinquishes the undesirable pehaviour.

(11) PUNISHMENT:

It is an intervention used to decrease or eliminate an undesirable behaviour. There are two distinct forms of punishment that the teacher can consider for application with students. As commonly applied by parents and teachers, punishment is the application of an aversive stimulus as a consequence of an undesirable behaviour. Punishment of this form can be either physical or psychological. Spanking (physical punishment) and scolding and making child do extra work during leisure time etc. are examples of psychological punishment. The other form of punishment is the withdrawal of something the child perceives as pleasant. For example, not allowing the child to watch television or not giving him freedom to go out, or not allowing him to listen to music etc.

The withdrawal or subtraction of points/credits/tokens earned in the school/home is also used as punishment. This intervention is called response cost.

Punishment by deprivation or response cost is generally considered less harmful and a more effective intervention to the child than the application of physical or psychological aversive stimuli.

Punishment tends to suppress the undesirable behaviour rather than extinguish it. This suppression is of short duration and frequently the behaviour occurs in the absence of the punisher. It has been found that when a punished behaviour recurs, it usually appears at a rate higher than the frequency observed before the punishment was originally inflicted. In some cases, punishment causes severe emotional disturbances and hence punishment, especially harsh physical and psychological should be completely avoided.

Whenever, mild punishment is used, it should be combined with positive rewards for alternate desirable behaviours shown by the child.

(111) TIME-OUT:

forcing setting to a non-reinforcing setting for a specific and limited period of time. This is a procedure employed to decrease maladaptive behaviour and it is effective due to isolation and seclusion. Withdrawal of attention is also another form of time—out.

The effectiveness of time-out as an intervention is contingent on the following factors: characteristics of the individual child; teacher's consistent application of the intervention; child a understanding of the rules of time-out; Characteristics of the time-out environment; and duration of time-out.

The teacher must know the characteristics of the individual child before implementing a time-out intervention. For the acting-out, aggressive, group oriented child, time-out may be very effective. Such children want very much to be with the group and attended to by the teachers/parents. Consequently, time-out area is not a rewarding place for these types of children. However, for a withdrawn, passive, solitary child who is prone to day-dreaming, time-out is not applicable as such isolation will be rewarding to the child. These children may engage themselves in their own little world while in the time-out area, which would strengthen their maladaptive behaviour.

If time-out is to be applied as an intervention with a particular child, it must be utilized with consistency over a predetermined period of time. Frequently, teachers are inconsistent in their application of time-out procedures, as a result of which the child becomes confused and the target behaviour is unwittingly reinforced. Children should know specifically which behaviours are not acceptable in their classroom. In addition, they should know the consequences for exhibiting forbidden behaviour. If time-out is to be used as an intervention the rules

for time-out should be communicated to the children. The rules will assist the teacher in trying to remain consistent and fair, in the application of the intervention.

Care must be taken in the selection of time-out area. Teacher should avoid selecting an area that may appear non-reinforcing but is in effect reinforcing to a particular child. For instance, placing a child in the corridor for time-out may be extremely reinforcing as the child has an opportunity to communicate with everyone who passes. The area selected should be 'a' away from high traffic (b) away from doors and windows (c) out or the other children's view and (a) within view of the teacher.

Time-out loses its effectiveness as an intervention if a child is left in the setting for too long or too brief a period of time. For effective results, keep the child in time-out room till he/she shows desirable behaviour. In case of failure of this method other suitable forms of reinforcement procedure should be used.

(1V) SYSTEMATIC-DESENSITIZATION:

Desensitization is the process of systematically lessening a specific learned fear or phobic reaction in an individual. This has been effective when applied to individual child who has anxieties related to school attendance or who has phobia for participation in large group or phobia for water, animal, heights, examination and the life.

In order to apply desensitization in the classroom—the following conditions must exist.

- a) The teacher must have positive interpersonal relationship with the child. The phobic child must trust the teacher and be free to express fears in the teacher's presence.
- b) The teacher must construct an anxiety evoking stimulus hierarchy (to be adopted in real situation).
- The teacher must be willing and have adequate time to accompany the child in the natural environment in the progression from the least to the most anxiety-provoking stimulus in the hierarchy.

For example, when the child shows fear of coming to school, he/she should be exposed to the situations in a gradual way, by increasing distance in approaching the school and class.

Although desensitization was initially developed with clients in a clinical therapeutic setting, it has been implemented successfully in educational settings under the direction of psychologists and other behaviour therapists. Used successfully with a number of fears, the procedure has proved especially helpful in reducing test anxiety and modifying school phobia. (This procedure can be adopted in cases where fear or anxiety is the cause for coming late to the school).

B. <u>Increasing Desirable Behaviour</u>

The following are the procedures for increasing decirable behaviour.

CONTINGENCY MANAGEMENT: It is widely used with children who have major learning and behavioural problems. It is based on the operant conditioning principles, which means that behaviour is

influenced by the consequence, that followine, reward or punishment. In contingency management giving of rewards are planned. Usually it is 'contingent upon or followed by desirable behaviour, shown by the child.

A reinforcement is positive, if its addition to the environment (for example a smile or a praise etc., produces/strongthens/increase: the adaptive response. A reinforcement is negative, if its removal from the situation following a response produces the desirable behaviour.

These reinforcements are not given in an inconsistent manner. In contingency management, different 'Schedules' are followed. Depending on the purpose, some reinforcement schedules are more advantageous than others. Continuous reinforcement is the application of reinforcement after every emission of the desirable response. Although, it is often inconvenient, continuous reinforcement is the quickest way to establish a new behaviour and is very useful in the initial learning phases. The other schedule is intermittent reinforcement, that is, it occurs in relationship to the desirable response either after a period of time interval schedule; or after a certain number of desirable responses tratio schedule. Hence, a desirable response is continuously emitted in the hope of obtaining the reinforcement or reward and hence gets established.

The categories of reinforcers that are used to develop children's behaviour are:

- a) Non-verbal reinforcers such as, hugging, kissing, smiling, showing expression of approval etc.
- b) Social reinforcers such as expression of compliments by saying good, correct, etc. Not all social reinforcers are verbal praise. Facial expressions such as a wint, nearness to an important person who is sharing time and conversation, and physical contact such as walking arm in arm or sitting on teacher s lap are all rewarding.
- c) Material rewards or reinforcers such as sweets, toys, toffee, ice-cream, picture books, etc.
- d) Activity reinforcers such as occupying the first place in a game, watching television, going arond with peers etc.

For achieving the extinction of undesirable behaviour, the teacher/parent must practice the refusal of the above mentioned reinforcers.

Contingency management has many uses including reducing undesirable behaviour, developing new hehaviour such as academic skills, social-skills, and self-management skills, and it is effective in strengthening and maintaining existing desirable behaviour.

CONTINGENCY CONTRIACTING: It is based on operant conditioning. In this a 'contract (a written understanding) between the childer and parent/teacher is made out for desirable behaviours to be shown by the child, to get reinforcements in the classroom, school and at home. The amount and rate of reinforcements are specified in such contracts. For example, if the child is in time to school, he gets a reward, and if he has attended to his home assignments, then additional rewards are given to him. This sort of rewarding system with a regular routine is called 'Contingency Contracting'. In case, the child does not carry out according to the contract, reinforcements are either withheld or withdrawn.

The advantage of contingency contracting is that it is positive and the child takes an active role in deciding the type and amount of work required. Consequently personal responsibilities are understood by the child.

TOKEN ECONOMY: Token economy 15 a procedure in which a system of exchange is introduced to obtain tangible reward such as toys, stars, chocolates, stickers etc., as reinforcers. In this procedure children earn tokens that are exchanged for specific rewards.

The values of tokens become apparent as the children learn that token can be exchanged for a variety of rewards, such as being first in the lunch-time, getting 10 minutes of free time, listening to music, watching television and so on.

In this manner, tokens become potential reinforcers. They can be awarded over a period of time for acceptable academic and non-academic work. The system allows the teacher to structure the learning environment for positive reinforcement and to provide immediate feedback to the children via tokens. Hence, a moderately well run token exchange can promote direct learning regardless of the content of the activity.

The token-economy has worked very effectively in the classroom. Two reasons for its success are its lack of emphasis on competition with others and the fact that the reward menu provides sufficient variety of reinforcers to prevent boredom.

SHAPING AND CHAINING: It is the systematic reinforcement of a series of behaviour, each of which more closely resembles or approximate the desired behaviour. In order to reinforce these approximations successfully, a teacher must analyze the final desired behaviour or goal and must establish a hierarchy of responses that lead to that goal. For example, if verbal interaction is the desired goal for a particular child, then the response hierarchy may begin with one word response, then build to two-word response, complete sentences and eventually require initiation of conversation (the final goal). This entire procedure, moving from one step to another is called chaining. Other

classroom behaviours commonly modified through these procedures are task completion (gradually increasing the amount of learning tasks) and 'inseat' behaviour i.e. gradually increasing the number of minutes in seat.

MODELING: It is based on social learning theory and is most often used to teach appropriate behaviour. In modeling, a child is exposed to one or more individuals actually present (live) filmed (symbolic), who demonstrate behaviours to be initiated the child. In behaviour rehearsal, students are given verbal instructions and demonstrations by a model and they are then given time to practice the behaviour. In certain cases children though capable of a particular behaviour, refrain from indulging in it due to (a) fear (b) anxiety (c) the behaviour being weakly established and (d) due to the aversive consequences of the behaviour which has led to non-performance. For instance, when a child is not able to mix with other children and remains aloof, introduce a situation with a model child to a group of Reinforce the model child when he is mixing freely children. Observation of this situation would facilitate interaction of the withdrawn child with others.

All these procedures can be used independently or in combination, as required by the condition of the child.

CHAP (ER--IV

DEVELOPMENT OF BEHAVIOURAL INTERVENTION PROGRAMMES

In this chapter an attempt has been made to provide clear understanding of the problem behaviours of children in the classroom or at home and steps to be used in behaviour modification by the teacher/parents.

The common problem behaviours prevalent amongst elementary school students, which need to be taken up for modification by teachers/parents and significant others, have to be understood in the light of the descriptions given below, against each of them.

- 1. Often Comes late: means that the child comes to school frequently late continuously for a week either in a plock or intermittently, which numbers learning (Refer to Case Study No.1 & IA Page &1 & &3).
- 2. Stares out of the window: means frequently looking out of the window, for an increasonably long period of time, without diving attention in the lesson being taught in the class (Refer to case study No.2 Page 66).
- 3. Does not pay attention to the teacher: means the child is preoccupied with activities of his/her own and fable to respond appropriately in the context of the lesson taught in the class. (Refer to case study No.2 Page 66).

- 4. Withdrawn behaviour: (aloof or avoidant): means that the child sits quietly without participating in the classroom activities (life not answering, or spealing, or talking etc., for an unreasonable period of time having no known prior reason. (Refer to case study No.2 % 2A Page 66 & 69).
- 5. Speakes out of turn: means opening without waiting for his/her turn to come (Refer to case study No.3 Page 71).
- 6. Makes Noise: means either tall ativeness or producing distractions through noise line hanging desks, throwing, dragging, and tapping chairs etc. (Refer to case study No. 3 & 3A and page 71 & 73).
- 7. Over talkative: means talking continuously for a long time without giving a pause or a chance to others, which disturbs the process of learning for himself/herself or for the class. (Refer to case study No.3 A Page 23).
- B. <u>Does not raise hand in the class</u>: means that the child does not raise hand even when he/she knows the answer for the question which has been asked by the teacher. (Refer to case study no.4 & 4A page 77 & 80).
- Does not complete home work: means most of the time fails to complete his/her home work (Refer to case study No.1 A page 63).
- 18. Incapable of working independently: means always depends on parents/siblings or friends to help in completing his assignments. (Refer to case study No.5 % 5A Page 82 % 83).

- 11. Comes to teacher's table frequently: means coming very often to teacher a table without any apparent reason which disturbs the teacher as well as the class (Refer to case about No.6 & 6A page 86 & 88).
- 12. Frequently leaves the seat without teacher's permission:

 means often leaving the seat and going to another place,

 or leaving the class or meddling with other's activities

 and belongings without the ceacher's permission

 (Refer to gase study No.7 & 7A Page 90 & 93).
- 13. Interrupts: means either physically or verbally interferes with the on-going activity (life talling incessantly, through inappropriate recitation, singing etc.) of the teacher/child in the class frequently. (Pefer to case study No.8 & 8A Page 90 & 98).
- 14. Uses abusive language: means using of obscene and bad language directed it others in the class/home or outside. (Refer to case study No.9 page 181).
- 15. <u>Biting</u>: means use of teath for biting as a practice to express his/her anger and aggression (Refer to case study no.16 page 163).
- 16. <u>Hitting</u>: means use of physical method of hurting others for expressing his/her anger and aggression. (Refer to case study No.10 page 195).
- 17. Creating prouble in the playground: means either punishing or subduing others or nampering games, or expressing his/her aggression on others. (Refer to case study No.11 page 195).

18. Fighting too often: means physical actions directed against others to the extent of inflicting injury or pain (Refer to case study No.12 page 167).

The above descriptions of the problem behavours are given as clarification for the parents and teachers in order to observe them for a considerable length of time before coming to conclusion, that they need to be modified. The minimum period of observation should be atleast for 5 to / days.

What the teachers/Parents/Significant Others should NOT DO whenever a Problem Benaviour is Observed.

- 1. Should not punish the child, at the first instance.
- T. Should not criticise or compare the child with others.
- 3. Should not give an elaborate talk on do's or dont t.
- 4. Should not create fear in the child by saying, things like "God will punish you" etc.
- 5. Do not blame the child unnecessarily.
- Do not have the bias/prejudice that the child shows the problem behaviour because of his family or cultural background.
- 7. Do not think that the child alone is responsible for his problematic behaviour; others may be contributing to or responsible for his present behaviour.
- A. Do not say that the child is 'mentally ill' or possessed by ghost or spirit.
- Do not expect all the children to be of similar capabilities.
- 10. Do not have the prejudice that the child having problem behaviour is always of low intelligence.

- 11. Do not give a "nick name", to the child like "donkey" "monkey" etc.
- 12. Do not expect too much from the child.
- 13. Do not use obscene or hurting statements while talling to the child, for example, "your father is an illiterate fellow" etc.
- 14. Do not immediately start any behaviour change programme without observing the child for 5 to 7 days time.
- 15. Should not be overprotective in defending the child's undesirable behaviour.

PROBLEM BEHAVIOURS AND INTERVENTIONS

Boy-I A.OFTEN COMES LATE.

In this find of problem behaviour teacher/parent should take the following steps to modify the beahviour.

- 1. The teacher should come to the class in time and take the attendance, point out to the late comers whenever they come, and tell them not to come late in future.
- The teacher should appreciate and praise the children who come to the class in time.
- 3. When the late comers come in time to the class, the teacher should ask other children to appreciate them and clap for them.
- 4. The teacher should make a special mention in the class that the days on which all the children come in time, they can have 5 minutes of jokes and humour before the first period starts.
- 5. The teacher should examine the nature of the subject being taught in the first period of the day and should attempt to find out in there is any link between the child coming rate and the nature of difficulty in the subject. If any link could be established, the teacher should help the child to overcome this difficulty and ensure that he/she comes in time.

- 6. If possible, group study habit may be organised by the teacher where a better student can help and guide weaker students.
- 7. The teacher should maintain punctuality card' for every child and should put a () tick mark on the punctuality card showing the child s arrival at the class in time. The card should be sent to the parents and they should be advised to reward the child appropriately.
- 8. The days on which the child reaches the class on time the teacher should take note of it and give the child a hug, pat or kiss.
- Teacher should contact the parents and make sure that the child starts for school in time from home.
- 10. Parents should ensure that the child does not engage himself/herself in play or stray activities on the way to school.
- ii. Parents should be helped to learn to praise or reward the child appropriately whenever he/she had punctual attendance in school over a certain period of time, for example, every third day or, every weel or every mifteen days, based on the Punctuality Card.
- 12. Parents should see that a pattern of regular routine life is maintained by all in the family and not by the child only. There should not be any excess household work for the child which would make him/her late to school.

- 13. In case the child is unmanageable then both teacher and parent should discuss the problem and give a mild punishment such as., warning to the child, or scolding him/her or by putting him/her out of the class for a short period of time etc. Parents may also be advised to withdraw the reward which they were giving the child earlier.
- 14. When the child is rewarded for punctuality he/she should be helped to express his/her felt happiness. For example, the parent or the teacher may ask "Are you happy?" The child would say or child would be prompted to say, "I am happy". This sort of practice may be repeated as often as possible.

In the above series of interventions, behavioural procedures like, positive reinforcement, peer reinforcement, response cost, group reinforcement, modeling, behavioural counselling and environmental manipulation have been spelt out for problem such as the one given in the Box I.

- B.STARES OUT OF THE WINDOW.
- C.DOES NOT PAY ATTENTION TO THE TEACHER.
- D.WITHDRAWN BEHAVIOUR (KEEPING ALOOF/AVOIDANT).

These problem behaviours (given in Box II above) have been clubbed together because they are at times interrelated and hence the teacher/parent should adopt the following steps in order to modify these behaviours, on the basis of behavioural analysis.

- Teacher should make the child sit at a place where the child does not get easily distracted.
- Teacher should also make the child sit near to himself/ herself (like sitting in the front row) for arousing his attention easily and holding it for a longer period of time.
- 3. Teacher should observe if the child is distracted by his/her desk mate and if so, separate him/her from the seating position.
- 4. Teacher should close the window or use a screen to avoid external disturbances creating distraction for the child.
- Teacher should make the teaching programmes simple,
 interesting and eye catching for the child.

- 6. The lessons should be broken into simpler, step-wise method to avoid confusion and facilitate better understanding by the child.
- 7. Feacher should use a two way teacher-child interaction
 in a pleasant manner in the class. Teaching aids and participation from children in using the blackboard. isking questions etc., should be carried out.
- 8. To hold the child's attention and concentration, the teacher should give a signal (life tapping on the table before putting questions to the child).
- When the child shows attentiveness the teacher should praise him/her.
- if. When a child is inattentive, he/she may be asked very simple questions like "Is Rama a king or Queen?"

 When the child answers correctly, the teacher should praise him/her and after asking a few more questions to others, should get back to the child and ask a slightly more difficult question. Gradually increase the difficulty level as he/she tries to be more and more attentive.
- 11. When the child answers the question correctly the veacher may ask other children to diap and encountie //him/her for participation in the discussion.

 12. The teacher should ask questions to another child and praise him/her for his/her attention and active

participation in giving answers.

- 13: For a child with attentional problems, story telling sessions could be organised in small groups, in which the teacher tells a short but interesting story and the child is asked to repeat it.
- 14. In the play ground the withdrawn child may be associated with a socially active child who could help that child in participating in pleasant games. For successful participation, the child should be praised by both teachers and classmates.
- 15. Activities like drawing, painting, clay modeling, singing, dancing etc. alongwith audio-visual aids can be used for making the withdrawn child develop social interaction.
- 16. Parents should spend some leasure time regularly with this type of children. They should avoid comparing or punishing them.
- 17. In case, inattention and withdrawal increase, they should consult a clinical psychologist or psychiatrist.

In the above series of interventions, procedures like environmental manipulation, differential reinforcement, peer reinforcement, modeling and behavioural counselling have been spelt out.

Box-III

- E. SPEAKS OUT OF TURN.
- F. MAYES NOISE.
- G. OVER TALLATIVE.

In Box-III, three more problems commonly observed in classrooms have been presented and remedial measures suggested below:

- 1. The teacher should ignore the child's answering the question out of turn (when he she is not asked to) by not listening to the child.
- 2. Reprimend (scold) the child for this behaviour and ask him/her to say sorry.
- 3. When the child responds to question in his/her turn, he/she should be praised and the teacher should specifically point out the appropriateness of his/her behaviour. For example, when the child answers in turn the teacher should say "this time you have answered when you were askedgood. Continue in the same way and wait for your turn or chance to come/"
- 4. The teacher should reprimend the child for making house and at the same time when he she is silent, he/she should be praised immediately.
- 5. The teacher should select the noisy children without their knowledge and engage them in activities, like singing. drama etc. for giving them opportunity to release their need to be noisy or giving vent to their

emotions.

- 6. The teacher should praise those children who speak only when asked and do not make noise and are not over talkative.
- 7. Parents should also be assed to ignore the child at nome for talling too much, interiering in conversations and showing noisy behaviours. They should also reprimand the child wherever it is necessary.
- 8. Parents should praise and reward the child for his/her appropriate silence and verbal behaviour.
- 9. Parents should ask the over talkative child to read aloud either his/her lessons or any other reading material for as long as he/she can.
- 10. Neither the parents nor the teachers should at any time unnecessarily impose restrictions on the children to be silent. Rather they should give them opportunity to have their vocal expression and activity appropriate to their age.
- 11. When noisy behaviour is associated with hyper-activity

 (unnecessarily running around and unsteadiness) and

 do not show improvement with the intervention, a clinical psychologist or a psychiatrist should be consulted.

In the above series of intervention, procedures like time-out, differential reinforcement, modeling and .behavioural counseling have been spelt out.

- H. DOES NOT RAISE HAND IN THE CLASS.
- I. DOES NOT COMPLETE HIS HOME WORK.
- J. INCAPABLE OF WORKING INDEPENDENTLY.

In the Box-IV, a few more interrelated problem behaviours have been highlighted, which all need intervention. The procedures for intervention to modify the undesirable behaviours are given below:

- Ask the parents to fix a study time at home for the child as far as possible according to the desire and convenience of the child.
- 2. Parents should distribute the time at home equally for leisure time, activities and study.
- 3. Parents should not snub or criticise the child in the presence of others.
- 4. Parents should be asked to encourage the child when he takes initiative in mixing with others both at home and in the neighbourhood.
- 5. Parents should appreciate the child's independent activities as for example, studies or otherwise to be carried out at home.
- 6. Parents should have a check on homework and guide the child for doing it by himself/herself with minimal help as and when required.

- 7. When the child starts doing his/her work intermittently (at intervals) the parent should appreciate and encourage the child or reward the child with whatsoever he/she likes; for example, he/she may be given the estables which he/she likes most.
- 8. At intervals a parent should discuss with concerned teacher about the nature of home work assignents given to children for reducing anxiety and facilitating learning habit.
- 7. Teacher should make the amount and quality of homework reasonable and as far as possible simple, interesting and practical for the child.
- 1Ø. The teacher should follow the procedure of teaching as well as assigning tasks from the simple lesson to the complex aspects of it. This graded procedure would help better comprehension, memory and acquisition of learning.
- 11. Teacher should not punish, numiliate or criticise the child before the class at the first instance of failing to bring the home assignment.
- 12. The teacher should give simpler tasks to the child in the class for working out independently. When he/she does so, praise the child for it.
- 13. The teacher should appreciate the child working independently. For example, I am happybecause you have done a good job by yourself'.

- 14. In case of a child's fear, lack of interest and hence not working independently in the class, the teachers can take the help of the peers (may be a student from a higher class) to assist the child about working out his lessons.
- 15. Teacher in the class should not be judgemental of the child's performance, but should be able to give an objective assessment of the child's work.
- 16. The teacher should understand that child will commit some mistakes while working independently. Thus, instead of getting over anxious, they should guide them with love and affection.
- 17. Parents and teachers should talk to the child in confidence and find out about his/her feelings or fear, shame and anxiety.
- 18. Parents and teachers should discuss about the child's manner of doing things at home and at the school.
- 19. Parents and teachers should find out the child's strength and weaknesses/likes and dislikes in the subjects taught.
- 20. The teachers and parents should not be impatient, or over sympathetic or over protective. Also, they should not have too high expectations from the child to perform.
- 21. To develop the independent working habit, the teacher and parent should see that the child does not copy from books, or from the notebooks of friends or does not get the work done from others at home.

- 22. At home or in school, the atmosphere should be congenial in helping the child's freedom of speech and action.
- 23. Parents should not engage the child in unnecessary

 household activities which consumes child a leisure hours
 and adds to his/her fatigue, creates disinterest, and
 distraction from study activities.
- 24. Always teachers/parents should keep in mind that
 learning through play makes the child more effective
 while pampering and perfectionism (rigid attitudes)
 spoil him/her.
- 25. If no progress is observed with behaviour modification procedures adopted with the child, then a psychological assessment of his/her intellectual functionings like attention, concentration, memory and intelligence should be done by an expert.

In the above, behaviour modification procedures such as behavioural counselling, intermittent reinforcement, programmed learning and peer tutoring have been spelt out.

- F. COMES TO TEACHER'S TABLE FREQUENTLY.
- L. FREQUENTLY LEAVES THE SEAT WITHOUT TEAHCER'S PERMISSION.
- M. INTERRUPTS TEACHING IN THE CLASS.

Box-V presents a few more typically related problems encountered commonly in the classroom. The procedures to modify such behaviours are presented below:

- Teacher should find out if there is any discomfort in the child's sitting position in the class i.e child's vision is obstructed by a taller child or there are defects in the eyes. The teacher should also see if there is another child setting by his side who is meddling with him/her and his/her dress, books or other belongings.
- Teacher should find out if there is any other specific factor disturbing the child to be in his/her seat.
- Teacher should see if the sitting arrangement is comformtable for the child (Physical condition).
- 4. Teacher should try to understand the needs of the child at the first instance of his/her coming to the teacher. For example, child may be feeling insecure in the class or wants affectionate help, etc.

- 5. Whenever the child comes repeatedly, the teacher as far as possible should ignore mis/her presence near the table e.g. the teacher should pose as if he/she is busy in reading, writing or doing some other work.
- 6. The teacher, when the child comes, should take him/her by the arm back to the seat. When the child sits, he/she should be praised.
- 7. As soon as the child starts to move out of the seat, the teacher should give signal through gestures i.e. by showing finger not to move.
- 8. When the child moves out and medales with other children, reprimand him/her, tale him/her back to his her seat and ask him/her to say sorry.
- 9. In case, the child has thrown or displaced articles of others reprimand and ask the child to replace the object and say sorry.
- 1Ø. When the child obeys, sits in his/her chair and does not interrupt others, teacher should ask the peers to clap and praise.
- 11. When the child sits in his/ner seat for shorter period of time, praise the child and subsequently praise him/her when sits for a longer duration.
- 12. The child should be lept engaged in a task which is interesting to him/her while carry on the task sitting at his/her place. This procedure is always better to be started in classes where drawing, painting, claymodeling are being done. For example, the child may be asked to draw a picture sitting at his/her chair and then being praised

for his/her performance.

- 13. If the child leaves the seat frequently, then as a last resort, take the child and ask num/her to stand in a corner facing the wall for short period of time e.g. the teacher may count from 1 to 10 and 11 the child says he/ she won t do 1t again, immediately terminate this procedure.
- 14. Parents should find out whether the child shows overactivities like meddling with things, not sleeping
 properly and running around in the neighbourhood.
- 15. Parents should spend time with the child and engage themselves in pleasant activities.
- 16. parents should make the child engage in some simple tasks at home for a few minutes and then following it, take him/her out, hand in hand for a walk. If the child works for 2 minutes take him/her out for 10 to 15 minutes. Slowly encourage the child, praise him/her and gradually increase the steadiness behaviour lengagement in work) with reducing the going out activity. Simultaneously reduce the time or going out gradually.
- 17. Parent should also advice other children at home/
 friends/extended family members to reward the child
 for his/her steadiness behaviour.

18. Wherever disruptive activity is observed to be high with the child without any apparent reasons, please take the opinion of experts like clinical psychologist or psychiatrist.

In the above interventions, procedures like time-out, parental beahvioural counselling, restraints, restriction. differential reinforcement and Premack's principle have been spelt out.

N.USE OF ABUSIVE LANGUAGE.

D.BITING.

P.HITTING.

Q.CREATING TROUBLES IN THE PLAYGROUND.

R.FREQUENT FIGHTING.

In Bo. VI, problem behaviours such as assaulting and aggressive behaviours have been highlighted. As these are all of a similar type, the procedures for handling these behaviours are also more or less similar. These are presented below:-

- 1. Without any bias, teacher should find out the nature of the family, parents, and the enviornment where the child has been brought up and lives at present.
- 2. If the parents are not in good harmony with each other then a teacher-parent discussion ought to be taken up to sort out for a solution of the problem of the child.
- J. A teacher/volunteer/neighbour/ a relation with whom the child is free and open can be selected as a mediator in modifying the behaviour.
- 4. If the home and the environment in which the child lives, has a bad impact on him/her, if possible, consider a change of the environment by sending the child to

- 5. The child and parents may be psychologically assessed by a Clinical Psychologist as and when required.
- 6. Parents should reprimend the child when he uses abusive language or fights.
- 7. Parents should chalk out a "Happy Day Routine" for the child which would consist of well balanced leisure time, study time, and participation in household activities.
- 8. Parents should spend more time with this sort of children and adopt overcorrection as and when the child shows undesirable behaviour. For example, if the child uses bad language of any type, then the parents must correct the language and ask the child to repeat the right language.
- 9. Parents should give sufficient opportunity to the child for having games involving active physical exercise.
- 1Ø. Parents should reward the child as often as possible when he/she shows a desirable behaviour pattern of talking politely and interacting with others in a sober fashion.
- 11. The parents should not only demand sobriety (decent behaviour) from children but also shall demonstrate politeness in their behaviour and actions towards children and others in their everyday life which would provide models for learning.

- 12. The teachers should not get offended and punish the child when they come across the above undesirable behaviour at the first instance.
- 13. When the abusive language is directed at other peers and not the teacher, a teacher should reprimand one of the children who is responsible for initiating such an interaction.
- 14. If the child is unreasonably abusive, the teacher may use mild punishment (one should be cautious in doing so), life shubbing.
- 15. If the teacher has a group of aggressive children then he/she can asl some of them to enact in the form of caricature the pattern or good behaviour and plaise the desirable behaviour pattern dramacised. The others in the group, those who observe the enactment will learn such behaviour because of the observation of the good models.
- 16. If the child is troublesome in the playground, he/she can be reprimanded and/or removed from the game.
- 17. If the child is of an aggressive nature then give nim/
 her the responsibility of managing the entire game and
 handling the responsibility of protecting the play
 materials and playmates. Intermittently reinforce this
 child for his her sober and trouble free behaviour.

- 18. When the child often uses biting/abusive language, as a protection, use good children specially those who are friendly to him/her for praising him/her for his/her good behaviour, gradually see that the he/she is not harmed, provoked or called by bao nick names.
- 19. When the child is in the habit of freel, nitting others the parents/games teacher may use purching bags/pillows for aggression release.
- 2Ø. The aggressive children should be engaged in dancing recital, climbing, trekking, gardening and such other activities involving physical exercises.
- 21. The teachers should try to reward and praise the desirable non-aggressive behaviour pattern like playing, swimming, acting, dramatising etc.
- 22. When the child shows desirable behaviour at school an information card with (, mark should be sent to the parents and parents should be advised to reward the child either through praise or a gift at home.
- 23. If a group or aggressive children could be identified in a school, then a group discussion can be taken up for managing each other's behaviour in a rewarding fashion, through a self-help group activity.
- 24. The teachers should not give unnecessary attention to the aggressive children by way or advising them.

- 25. Assertive training, yoga, and relaxation procedures should be adopted in consultation with a clinical Psychologist for reducing emotional disturbance or aggression.
- 26. In a class or group when there is signs of aggression among younger children, the teacher should teach them to bury their heads in between the folded arms and count from 1 to 10.

In the above series of interventions, procedures like aversive conditioning, time-out, behavioural counselling, relaxation, yoga, modeling, environmental manipulation, back-up reinforcement and behaviour interaction have been spelt out.

CHAPTER-V

CASE-STUDIES

Recent past has seen the ever increasing application of intervention procedures with normal students in a variety of classroom situations. There has been an extensive work on the use of behavioural consequences to reduce children's undesirable and disruptive behaviour and to increase attending or study behaviours. Undesirable social and disruptive behaviour generally includes behaviours such as talking to class-mates, throwing objects, striking other students, wandering around the room without teacher's permission, not raising hand in the class when knows answer to a question, incapable of working independently. interrupting classroom activities, speaking out of turn, making noise etc. Desirable study behaviours generally include, orientation towards class-mates when they are reciting, looking at books or study material, listening to the teacher, writing cooperately with other children, sitting attentively in the class, following teacher's instructions etc.

Disruptive or problem behaviours need to be decreased by behavioural intervention programmes because of the assumption that these changes will have beneficial effects on the students performance in the class. Problem behaviours are of concern because they are aversive to some one and in many cases the child

himself. This is a phenomenon that must be analysed and modified. Such behaviours, if not identified and modified at an early stage, may become firm patterns of individual behaviour, create severe interruption in school learning and cost enough to the society. It is better to identify and modify such problem behaviours at nursery and elementary school stages because in early stages it is easier to modify problem behaviours and their disruptive effects can also be minimised. Case studies of different problem behaviours of students at elementary school stage and their modification are given in the following pages.

Case-Study-I

Child: A:: Age: 6 years:: Sex: Male:: Class: Ist Standard

Problem: Often comes late.

Identification of Problem: Late coming behaviour of Child Behavioural Analysis: An informal talk with parents revealed that the child-A left home everyday in time for school. A good rapport and an informal talk with the child revealed that he came to school straight from home and did not stop anywhere. Two observers followed the child on his way from home to school for 3 days and found that the child was walking too slowly and wasting a lot of time looking at natural sights, or flowers or trees or vehicles etc. on the road. He was observed to stand on the road side at various spots to watch the above mentioned things.

Behavioural Intervention: It was observed that the child was very fond of playing in the sand in the sandpits specially provided for the children to play in the games period. This was chosen as a reinforcer for the behaviour change programme. The child was instructed as follows: "You come late to school almost every day. This is a bad habit. I want you to come to school in time. From tommorrow if you reach the school in time, you will be allowed to play in the sand during the games period. If you will come late, you will not be allowed to play in sand".

This combination of reward	BEHA	VIOUR RECORDING	CHART
for desirable behaviour and	day	Behaviour late in time	Consequence (Playing
punishment of undesirable			in Sandpit)
	1	Late	_
behaviour brought changes	2	Late	-
	3	Late	~
ın behaviour. He started	4	Late	
	5	Late	-
coming to school in time.			
		INTERVENTION B	EGINS
Behaviour recording before	6	Late	not permitted
	7	in time	permitted
and during intervention is	8	ın tıme	permitted
	9	late	not permitted
shown in the recording chart.	10	ın tıme	permitted
	11	ın tıme	permitted
	12	ın tıme	permitted
	13	ın tıme	permitted
	14	in time	permitted

A follow up of one month revealed the continuation of the modified behaviour.

Case Study No.1-A

Child: B:: Age: 9 years:: Sex: Male:: Class: IIIrd Standard

Problem: Often Comes late; Does not bring his home work.

Questions to be probed:

- * What is the level of intelligence of the child?
- * Does he leave home in time and becomes late on the way?
- Does he resist coming to school and leaves home late?
- * Is anyone helping him for his homework assignments?
- * Are parents punitive?

This boy was referred from his school, for help, as he was coming late and not doing his home assignments. This was almost a daily habit.

On interviewing the parents, it was revealed that the boy was good in his studies upto the second standard. In the third standard, from the beginning of the icademic year, the child showed resistence to go to school and needed a lot of coaxing. At times his father punished him for not starting in time from home although the school was situated near the house.

The child was interviewed on a few occasions and he revealed that:

1. He is not able to comprehend, what the teachers teach in the class.

- Deften father purishes him for not petting up sarly in the morning to go to school: and
- 3. No one helps nim with his name work, as his parenth the illiterate and he is the only thild.

For these reasons he developed tack of motivation to come to school and attend to the home work assignments.

Benavioural analysis revealed that the maladaptive behaviour pattern was a product of:

- 1. Child's below average level of intelligence as found by an intelligent test;
- Failure to cope with the standard of teaching;
- J. Lack of guidance and nelo at nome: and
- 4. Punishment ov parents.

Taring the above factors into consideration the following behaviour modification programme was challed out:

- Behavioural Counselling was given to parents and teachers not to punish the child.
- They were asted to encourage the child and help nim in attending the school.
- J. Teachers were asked to engage one of the brighter children in the class to nelp him in working out his assignments.
- 4. One of the teachers was requested to give him extra coaching at nome and talk to the child for increasing his confidence.

Within three and ha!t months, the child was regular to school and his performance in class improved. His interest in punctual attendance of school also increased.

Important Tips

- This sort of children should be given psychological tests to assess their intelligence and learning ability.
- 2. If they have mental retardation they should be put to special education classes.
- 3. Behavioural Counselling to avoid punishment, should be given to both parents and teachers.
- 4. In case there are distractions on the way to school

 (like playing, gossipping, indulging in other activities),
 that should be checked and removed.

Case Study 2

Child: C:: Age: 8 years:: Sex: Male:: Class:Illrd Standard

Problem: Stares out of window, Quiet and withdrawn, Does not pay
attention to teacher.

Question to be probed:

- * Is there a distracting stimulus outside the window?
- * Is the child quiet and withdrawn from the beginning? Or is
- * Is he/she able to comprehend properly the medium of teaching?
- * What does the child do while the teacher is teaching?

The child 'C' was brought with the complaints mentioned above. The following facts were found from the interview with the child.

- Child was transferred from a village school to a city convent because of his father's change in the job.
- His comprehension of English was poor as he was reading in a school with pure Indian language (Kannad) medium.
- 3. The children in his class were more sophisticated and used to make fun of him and call him by a nick name 'Pedda' (means dullard).
- 4. He was mostly interested in observing gardners working outside in the school garden, talking in local language, through the window and enjoying the jokes they used to cut.

The problem behaviour was of six months duration; at times the child used to cry and refused to go to school. During teaching hours he was scolded by the teacher as he was just scribling and not taking notes.

On behavioural analysis it was found that the child's maladaptive response pattern was maintained by:

- His sitting position in the classroom and distracting stimuli outside.
- 2. His failure to comprehend English language.
- Nickname given and jokes made at him by his peers.

The following behaviour modification programme was carried out:

- Behavioural Counselling to parents and teachers were given to reinforce him for speaking and responding in English.
- Peer-reinforcement (encouragement by classmates) and not humiliating him in the class was ensured by the teachers.
- Peer-modeling to interact in English was arranged by the teacher during lessure hours.
- 4. His sitting position was changed and he was asked to occupy a chair in the front row of the class.
- He was further encouraged and reinforced by the teachers to take down notes in the class.
- 6. He was given an important role to help teachers in the management of cleanliness of the class.

7. Further he was made to participate in other group activities like play, singing, prayer etc.

Within the period of two months child improved in his behaviour and his academic performance was of average standard.

Important Tips

- Children with 'withdrawn behaviour' should be assessed by
 a clinical psychologist to find out if there is any
 (i) depression in the child, and if the child is
 suffering from (ii) attentional deficit disorder.
- If such disorders are detected then they may be treated by trained clinical psychologists.

Case Study - 2-A

Child: D:: Age: 6+ years:: Sex: Female:: Class: Ist Standard
Problem: Withdrawn behaviour/keeping aloof

Identification of Problem: The class teacher reported that the child was a withdrawn type of child who always sat in a corner seat of the last row of the class. She never participated in any classroom activities such as, group signing/recital or any type of class-room drill. She had no friends and did not play with other children during the class break or the games period; otherwise she was good in studies. This report of the teacher was further confirmed by two other observers.

Behavioural Analysis: A chat with the child's parents revealed that she was not so at home, she talked and played normally with others. She had an elder sister and a brother with whom she used to play. Further, it was observed from the behaviour of parents that they paid over-attention and over-affection to her as she was the youngest in the family. Parents also informed that she did not go to school happily. She had to be forced to go to school. After this talk with the parents, an informal interview with the child revealed that she felt neglected in the school.

Behavioural Intervention: Behaviour modification was started with the help of the class teacher. The teacher was instructed to pay special attention to and make her sit in the first row of the class. The teacher gave opportunities to motivate her to

take part in classroom activities by asking her to collect the answer-books of all the children in the class or distribute the corrected answer-books back to children or she was asked to lead the class in recitation of a poem or a song etc. It was observed that these opportunities brought positive change within a week in the child's behaviour. She looked happier and more alert and active than she was before intervention when she was not participating in the classroom activities.

To make her talk and play with other children, the teacher made her a leader of one group of children for the games period and gave them one swing' to play with. She was now given the opportunity to react with other children during the games period. The teacher was also present on the games field and helped her and encouraged her whenever required. It was observed that gradually she developed interest in play activities and started playing and enjoying with other children.

Talks with the child's parents after 15 days of intervention revealed that now she was coming to school happily. An informal talk with the child also revealed that now she was happy in the shool and felt attended by everybody.

Thus, 15 days intervention during which the child was notivated through positive reinforcement strategies to particiate in all activities in the shoool, brought a desirable change in her behaviour and from a withdrawn child she became a sociable child. This behaviour maintained during further following of a month.

Case Study-J

Child: E:: Age: 7 years:: Sex: Male:: Class | Ind Standard | Problem: Speaking out of curn; Making noise;

Questions to be probed:

- * What satisfaction does the child derive from this sort of behaviour?
- * What do others do when the child manifests this sort of behaviour?

This child was brought with the complaints of speaking out of turn and in an irrelevant fashion for creating noise in the classroom and never used to allow others to talk. From the history it was observed that the child was of heavy built for his age. He was nich named as king-kong (a man who fights) for his behaviour by his friends. In the class he used to boss over other children. For his pody built and appearance, others used to like him and praise him. Even when he manifested undesirable behaviour, the teachers and peers would laugh and pass comments, which were liked by him. In due course of time, when he wanted to get the attention of others or cover up his failure, he used to behave in an undesirable fashion.

Behavioural analysis revealed that his undesirable behaviour pattern was maintained by the attention he used to get form peers and teachers.

Behaviour modification programme was directed at:

- (i) the classroom environment and
- (11) the child

The teacher was given behavioural counselling for not giving much attention to his clownish behaviour, but whenever required 'over-correct' him for the undestrable behaviour. Secondly, the teacher was asked to praise another child who is quiet and talks to the point in a teaching situation, in this child's presence. Subsequently when the index child showed destrable behaviour, he was also praised before others. His friends were trained to praise him for his appropriate behaviour. Further, he was put incharge as the monitor of the class, organising games, and entertainment programmes.

With this programme, within a period of one and half months the child showed appropriate pattern of behaviour.

Some Important Tips:

- 1. If the behaviour is excessive Physical time-out (putting the child in a time-out room) may be used.
- 2. Punishment should be avoided.

Case-Study-3-A

Children: 3 girls of Class V aged 11 years.

Problem: Making noise (talking continously)

Identification and Analysis of Problem: The cases were reported by the teachers that these girls were extremely talkative and continuously talked in high pitch and laughed in the class even when the teacher was teaching. The achievement scores of these children in the terminal examination were found to be poor and they had failed in English and Mathematics. The behavioural analysis showed reciprocal relation between poor performance and noise making behaviour, i.e. since they could not cope up with studies in Mathematics and English, they did not show interest in studies and used to talk and laugh. Due to this undesirable behaviour they were not able to learn anything. The teachers labelled the girls as dull, and ill behaved students.

The behavioural problem was identified and analysed with the help of the following methods:

- a) Reports of school teachers.
- b) Observation of behaviour by two observers.
- c) School achievement scores.
- d) Testing An achievment test in English and Mathematics and Bhatia s Battery of intelligence Tests were adminsitered on each child. Results of intelligence test showed that none of these children was below average level of intelligence.

Behavioural Intervention: Special instructions and token economy methods were used for behaviour modification of these children. The psychologist met these children and told them that they will be given help in learning Mathematics and English so that they can get good marks in the tinal examination. Special teaching sessions were arranged. The following instructions were given to these children. "I will teach you Mathematics and English every day and will give you class work and home work. Each one of you will get one score for doing class work and one score for doing home work neatly and correctly. Thus, you can earn two scores every day, and twelve scores in a week. At the end of the week your scores wil be exchanged by sweets, or pencils, or rubber (eraser), or sharpener - whatever you choose. You can get twelve items of your choice every week if you take interest in studies and work regularly and attentively". It was observed that the children were regularly coming for extra coaching and were trying to earn maximum scores by doing home work and class work carefully. The scores earned by the children are given in Table 1.

Table-1
Scores earned by children for doing classwork and homework during intervention.

		Token so	ores earne	Total	
Children	Wk.I	Wk.II	Wk.III	Wk.IV	earned in 4 weeks
1	9	10	11	11	41
2	8	11	11	12	42
3	8	8	9	10	35

After four week intervention programme, the children were given an achievement test in Mathematics and English. This test was equal in difficulty level to the test given before intervention. The results are given in Table 2.

Table-2
Achievement scores of children in Mathematics and
English before and after intervention

		Achievemnt test scores in %						
Subject	Before	Intervention	After I	ntervention				
	Maths	English	Maths	English				
1	10	12	45	49				
2	2	8	40	46				
3	Ø	5	46	42				

Children's behavioural problem of making noise in the class by talking loudly and laughing were also dealt with simultaneously. They were instructed as follows: "you will get one extra score every day if you will sit quietly in the class. I will take the report from your teachers everyday". Daily reports were taken from the teachers and children were given scores. At the end of each week these scores were exchanged with backup reinforcers. The number of scores earned by the children every week are given in Table 3.

Table-3
Token scores earned by children for not making noise in class

Children		Total			
بنية لذر ينبه عنوالنم فيم ينبه ليموجد جدو يابه جنة	WF.I	WF.JI	WF.111	WIIV	scores earned
1	4	5	6	6	21
2	5	6	0	6	23
3	3	5	5	6	19

A follow-up after two months also revealed the maintenance of the adaptive behaviour pattern.

Case Study-4

Child: F:: Age: 6 years:: SEx: Male:: Class: Ist Standard Problem: Does not raise his hand in the class.

Identification of the Problem: The behavioural problem of child 'F' was identified by observation of children's behaviour in the class by two observers over seven days. Teacher's reports were also utilised.

Behavioural Analysis: The observation revealed that the child never raised his hand in the class for answering any questions asked by the teacher. The teacher also complained of the same. An informal interview with the child revealed that the child was afraid of the teacher and therefore did not raise his hand even if he knew the answer. Secondly, he said that at times when he raised his hand, the teacher never asked him to answer.

Behavioural Intervention: After recording baseline behaviour for 3 days, intervention was started with the assistance of the class teacher. The teacher was instructed to remain attentive to the behaviour of child 'F in the class. Whenever he raised his hand, he was given an opportunity to answer and was encouraged and praised for reinforcing this behaviour.

• • • •

The child was instructed that he would get a prize (according to his pre-noted preference) each time when he raised his hand in the class (continuous reinforcement). Behaviour recording chart

shows baseline behaviour frequently Behaviour Recording Chart Behaviour recording before & during intervention is zero and in the first three days of (40 minutes period) intervention the frequency of raising Day Frequency of hand is only one. The child raising hand 1 ø hesitatingly raised his hand, the 3 teacher asked him to speak and 2 Ø praised him for whatever he spole. Intervention begins He was also given a reward by the 1 investigator which was a toffee as 5 the child told that he was very fond 1 of toffees and chocolates. When the 1 7 2 frequency of raising hand did not increase even on the third day, the 8 3 child was told that he will get half 9 a chocolate if he raised his hand 10 2 twice in a period and full chocolate 11 2 12 3 for raising hand more than twice. The requency of raising hand increased 13 gradually as is evident from the 14 behaviour recording chart. After 4 15

15 days primary reinforcement was withdrawn and only secondary reiforcement was then given. The teacher reported desirable change in child s behaviour. Thus, contingent teacher attention, praise and reinforcement proved effective in modifying the child s behaviour.

A month s follow up revealed the maintenance of the modified behaviour pattern.

Case Study-4(A)

Child: G:: Age: G: years:: Sex: Male.. Class: IInd Standard Problem: Does not raise his hand in the class.

Questions to be proped:

- * Was the child punished or ridiculed by peers or friends?
- * Is he not liking the subject or the teacher?
- # Is the child shy in disposition?
- * Do the teachers/parents appreciate his quiet behaviour?
- * Are there any other children who show the same kind of behaviour which this child imitates?

The child was referred for being withdrawn and not raising his hand for answering questions from the teachers in his Maths class only. On interviewing the child, it was found that he was punished by a teacher for giving wrong answers. Subsequently his peers threatened him that they would report to the Maths teacher if he committed any mischief or error.

Over a period of two months following this incluent, the behaviour disorder appeared in the united and he became quiet and did not respond in the class.

Behavioural modification programme was directed at:

- a. Environment;
- b. Teacher/parent, and
- C. The child

As a first step, environmental manipulation was carried out by changing the class section in which the child was enrolled. This facilitated in making the child feel the freedom from the hostile peer group and environment.

As a result the child started communicating with the new peer group; he was free from being withdrawn and became communicative.

Further, some of his friends and teachers were asked to include him in group activities like play, drawing, painting etc.

The teachers were requested to encourage him by giving social reinforcement (through praise) when he started becoming responsive; they were also told to praise other children who raised their hands in the class in his presence. Further, teachers were told to ask very simple questions, and when every one including him, raised their hands, the teacher asked him to respond; subsequently praised him before every one.

As a result, the child was desensitized to the fear, started showing active response by not only raising hand, but became more communicative.

To further enhance this capacity, parents were given behavioural counselling to reward the child when he reporduced the same type of behaviour at home during study hours.

Within a period of one month the child was completely free from his behaviour disorder.

Important tips:

- In such type of cases do not punish the child or criticise.
- Parents and teachers should take the major responsibility in modification of such behaviour pattern.

Case Study~5

Child: H: Age; 7 years:: Sex: temale:: Class: lind Standard Froblem: Incapable of working independently

Identification and Analysis or Behaviour: General observation of children's behaviour in the class and teacher's report helped to identify the behavioural problem of the child. She was observed to be sitting idle and looking at other children when rest of the children were writing in the class. The teacher informed that she wrote only when she was nelped. Further, it was observed that the child did not hold the pencil correctly. Behavioural Intervention: Modeling and shaping procedures were used to modify the behaviour of the child. The child showed marked and rapid progress after 15 days of intervention. She

was able to complete with other students of her class.

Case Study-5(A)

Child: 1:: Age: 6 years:: Sex: Female:: Class: IInd Standard Problem: Incapable of working independently

Questions to be probed:

- * Is the child having average intelligence?
- * Why does the child need help?
- * Who often helps the child at home or school in

Performing the tasks?

The child was referred with the problem behaviour that she is capable of worling, but does not work when left alone to do any task either at home or school. Often, she had the habit of asking questions for a reassurance that she is doing the task correctly or to seek directions for starting the work at hand.

On interviewing the child it was found that she was being tutored by one of her parents (mother) every day evening and morning. Mother often used to write a rough draft of the home tasks for the child; she used to repeatedly caution the child that she should achieve a rank in the class, without committing errors in the examination. (In this situation the child was not given a chance to do ner home task independently).

This habit of the child generalised to school situation and the child failed to do the tasks given independently.

Behavioural analysis revealed that the lack of confidence in the child was created and reinforced by mother, and the child searched for help outside the nome environment.

The behaviour modification programme was directed at:

- 1. The parent (mother)
- 2. The child, and
- 3. generalisation of behaviour modification gains to the natural environment i.e. to make the child work independently at any place.

Behavious all counselling was given to the mother for (1) allowing the child to have independent study habit; (11) not to repeat her statement that she should get a rank in the class; (11) to allow the child to work on her home tasks by herself, and following it, to correct the mistakes and praise her and (10) not to criticise or punish the child for her poor or wrong performances.

The teachers were also given behavioural counselling in the following manner:

- (1) To give simple tasks to the child in the class and to reinforce (praise) when she performed the work independently.
- (11) To gradually increase the taks performed by the child from simple to complex in nature.

This programme continued for two months and the child started working independently in the class, and performed well in the examinations:

Important Tios:

- Parents should not be over indulgent and express their anxiety before children.
- 2. Child should be thoroughly screened by a Psychologist.
- 3. If the child shows borderline or mild mental retardation then he/she should be referred to a trained clinical psychologist for improving the learning skills by adopting special procedures of intervention.

Case Study-6

Child: J:: Age: 7 years:: Ser: Male:: Class: JInd Standard
Problem: Comes to teacher's table very frequently.

Identification of Problem: The child's behavioural problem was identified by observing his behaviour in the class for one hour every day over a period of six days. Observation was done by two observers and teachers' reports were also utilised.

Behavioural Analysis: Observations and teachers' reports revealed that the child used to go to teacher a table for complaining against other children of his class and the teahers were, observed to entertain his complaints. An informal interview with the child revealed that this behaviour was a method for drawing the attention of the teacher towards him. The child said that the teacher did not pay attention to what he said and listened to other children and so whenever he wanted to complain about other children he went to the teacher's table.

Behavioural Intervention: After recording baseline behaviour for seven days, intervention was started with the assistance of the teacher. The teaher was instructed to ignore the child whenever he came to her table for complaining or for anyother purpose and at the same time to pay attention to the child when he was in his seat. The teacher was told to remain attentive to whatever he said when he was in his seat.

This ignroing procedure helped BEHAVIOUR RECORDING CHART to modify the child's un-Behaviour recording before and during intervention "desirable behaviur and paid (1 hr. each day) attention to the alternate Day Frequency of going to teacher s table desirable behaviour. It can 1 4 112 be observed from the behaviour 5 4 4 recording chart that the base-5 5 line frequency of behavior 5 ó (first 7 days) ranged between 4 to 6, but on the first day Intervention Begins of intervention, i.e. 8th day 8 Ģ 3 it reduced to 3 and zero on 1Ø 2 ø 11 the 11th day. Thus the strategy Ø 12 13 of non-reinforcement to un-14 Ø 15 Ű desirable behaviour and rein-16 Ø

forcement to desirable behaviour helped to modify child's behavioural problem.

A follow up observation for one month revealed the maintenance of the adaptive behaviour pattern.

Case Study-6(a)

Child: k:: Age: 6 years:: Sex: Female:: Class: IInd Standard Problem: Comes to teacher s table very frequently.

Questions to be probed:

- * Does the child come with a purpose?
- * does the child come very often without any purpose?
 and meddles with the articles on the table?
- * Does the child come and complain about others?

This girl was referred for disturbing the teacher by coming very often to the table of the teacher and asking for going out; some times she used to remain quiet and stand near the table and meddle with the objects on it. Some other times she would stand near the table and interrupt the teacher while talking with others, by calling loudly Miss.....Miss.

On interviewing the child, it was found that her mother was quiet punitive at home with all the children (she had six children, this child being the last). She (mother) was irritable used to punish and neglect children at home.

On behavioural analysis it was revealed that the child's maladaptive response was maintained by the attention the teachers used to give.

The following behaviour modification programme was adopted.

- Behavioural Counselling to teachers was given to withdraw their attention (time-out) when the child came to the table.
- They were trained to adopt differential reinforcement i.e. to praise the child when she used to sit at her place in the class for some time and not to give attention when she moved out of her seat.
- 3. The Miss' was told to spend some time daily during leisure hours and exchange jokes and pleasantries with the child.
- 4. Mother was given behavioural counseiling not to punish this child at home and spend some time with her. The eldest sister was also involved in the programme and she was told to play with her and praise her for doing simple house-hold work at home.

This programme was continued for one month; there was a complete modification of her problem behaviour.

Important tips:

- The family background of such children should be properly checked; attention demanding behaviour may be a result of children being deprived of parental love and affection.
- There may be a 'broken home where parents are separated, divorced or dead.
- 3. Child should be checked for having mental retardation; such children feel insecure in a group or crowd and often require the presence of an adult near them.

Case Study-7

Child: L:: Age: 8 Years:: Sex: Male:: Class: IIIrd Standard

Problem: Out of seat without teacher s permission (wandering

inside the classroom).

Identification and Behavioural Analysis: It was observed and reported by the class teacher that child 'l' roams around in the class, hits other children, 'throws things, shouts and teases others. All these behavioural problems indicated that the child was aggressive and his wandering without teachers permission was one of the symptoms of aggressive behaviour.

Behavioural Interventionm: After baseline behaviour recording of 1 hour time period for 6 days and selection of reinforcements, a contract was negotiated with the child (refer chart). The intervention was carried out for 1 hour daily and points were given for pro-social behaviors in the form of cardboard coins which were exchanged with back up reinforcers at the end of the day in accordance with the plan specified in the chart. After 4 weeks time when the child's behaviour was observed to have changed in the desired direction, reinforcement schedule specified in the chart was changed. The teacher was to give only social reinforcement to the child in the form of special attention and praise.

BEHAVIOUR MODIFICATION CHART

Name: L:: Age: 8 years:: Sex: Male:: Class: IIIrd Standard

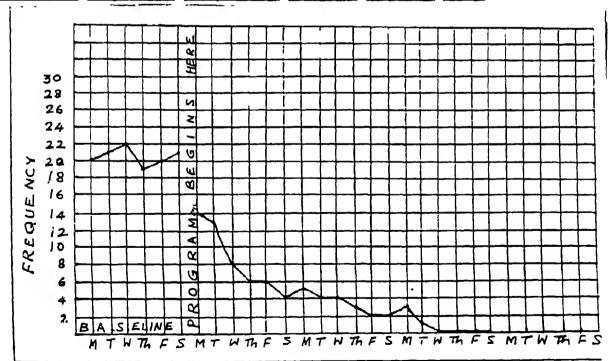
Ве	haviour		•	nts en)	to	be		CONSEQUENCES: BASED ON POINTS EARNED
		M	Т	W	Th	S	F	10 pts : 5 toffee+Clapping in class
No wandering	2							8 pts : 4 toffees
No hitting	2							6 pts : 3 toffees only
No throwing others thing	2							4 pts : 2 toffees only
No shouting	2							2 pts : 1 toffees only
No teasing	2							opts : No toffee + no play in games period.

TOTAL

DATA-GRAPH

Name: 'L':: Age: 8 years:: SEx: Male:: Class:IIIrd Standard

BEHAVIOUR: Aggressive (Wandering, hitting, throwing etc.)



Case Study-7(A)

Child: M:: Age: 6 years:: Sex: Female:: Class: IInd Standard

Problems: Out of seat without teachers permission.

Questions to be probed:

- * How frequenity does the child shows this sort of behaivour?
- * What do others do when the child is out of his seat and moves here and there in the class?
- * Does this behaviour occur only when a particular person is present by her side?
- * Does this sort of activity appear everywhere or only in the classroom?

This girl with average intelligence was referred with the problem of getting out of her seat in the classroom and changing places often or going out. She used to meddle with other's things in the class.

This was observed daily in the classroom and at home during study hours over the past six months.

On interviewing the child it was found that six months back she was transferred from another school to this school. The medium of teaching in the earlier school was Kannad', (local and regional language; whereas in the present school the medium was English. The child was not able to rollow the teachers properly and used to look at the notes, taken by her friends sitting by her side. Sometimes the friends were not cooperative and used to refuse showing their notes.

She used to become anxious and leave the seat to see/copy some other friend's notes taken in the class. Some of the students used to feel it as a nuisance; at times the child used to leave the class and cry outside. At home she was not able to do home work and used to meddle with other siblings during the study hours.

Parents being occupied (mother illiterate and father coming late from his office) could not help the child.

Behavioural analysis revealed that this behaviour was a product of:

- 1. the study environment,
- 2. anxiety experienced by the child and
- the refusal of help by the peer group.

Taking the above factors into consideration the following behaviour modification programme was adopted:

- The child was transferred to the school with the Indian language medium (kannad).
- 2. Modification of stimulus control in the classroom was done.
- 3. Differential reinforcement was adopted.

Parents were asked to change the school as the child was not able to cope with the medium of teaching.

In the new school the help of the teachers was taken.

(1) They were asked to make the child sit in the front row of the class and to write her own notes without observing or meddling

with others. (2) A good student was made to sit by her side; she was instructed to change her notes and help her during leisure, after the class hour. (3) Further she was praised by her teachers and friends, when she worked without moving from her seat.

She was included in group activities in the class, to develop a relationship among the peers. Parents and siblings were requested to spend more time with her at home.

Within a period of two months the child was quite normal and her conduct and performance improved in the school.

Important Tips:

- This sort of children should be given Psychological tests to assess their intelligence.
- 2. If they are found to be mentally retarded, special care should be planned.
- 3. Parents should not make sudden changes in school, with different mediums of teaching, which causes emotional disturbance in the children.

Case-Study-8

Child: N:: Age: 6 years:: Sex: Male:: Class: Ist Standard

Problem: Interrupts by mischievious behaviour.

Identification and Analysis of Problem Behaviour: Observation of child s behaviour in the class by two observers revealed that child 'N interrupted the classroom activities by mischievious behaviours like teasing other children, banging chair/table, snatching pencil/book/notebook of other children, pulling hairs or clothes of other children etc. It was further observed and analysed that these behaviours were reinforced by teacher's attention and laughing by the whole class. This child was taller than other children in the class and hence was seated at the back.

Behavioural Intervention: After three days recording of baseline behaviour (refer chart), intervention was started with the help of the teacher. Ignoring procedure was used. The teacher was advised to ignore the mischievious behaviour of the child instead of scolding him each time and making the other children laugh. When the child was not doing mischievious behaviour, the teacher gave attention to the child by asking him questions or calling him to the blackboard to write or asking him if he understood what was being taught and by apreciating the child for his reponse. Behaviour recording chart shows rapid decline in child a interruptive behaviour. The teacher reported marked progress and improvement or the child in studies.

Behaviour Recording Chart

Name: 'N':: Age: 6 years:: Sex: Male:: Class: 1st Standard

Behaviour: Interrupts (by mischievious behaviour)

Behaviour Recording: One hour duration/day

Day	Frequency of Interruptive Behaviour
1	14
2	12
3 ⋅	15
Intervention	Begins Here
4	9
5	4
6	1
7	1
8	1
9	Ø
19	Ø
11	Ø

A follow up of one month revealed the maintenance of the modified behaviour pattern.

Case-Study-B(A)

Child: 'D':: Age: 6 years:: Sex: Male:: Class:Ist standard

Problem: Interrupts.

Questions to be probad:

- * With whom and where does the child interrupt?
- * Is it a general habit or situational?
- What do others do when the child interrupts?

This boy was brought with the complaints of intrrupting with others by meddling with objects in work situations, repeatedly calling (loudly) the person nearby to listen to him and asking the same question again and again.

This was observed daily in school, home, or during shopping and at market places. This was of two months duration.

History revealed that he was the first child of his parents and his younger sister was born six months ago. He started demanding mother's presence and attention while he was at home and did not like his newly born sister. He used to be hyperactive and fall on his mother, while the infant was being fed or nourished by her. He used to pull his mother's face towards him and talk to her about his matters. This habit generalized to father, to school situation, where he demanded attention of peers and teachers; started talking loudly to distract

others; pulled note books, pen or bags of other friends; made noise by banging the desks. Often he was sent out of the class by the teacher or punished. He used to come back home and spend time with his mother.

On behavioural analysis it was found that the maldaptive-behaviour was caused by (1) the arrival of the second child which kept mother occupied, and (11) it was further maintained by the school environment.

Taking this into consideration, the behaviour modification programme was directed at (1) Parents and (2) the school environment and (3) teachers.

Behavioural Counselling was given to parents, in particular to mother for two things: (1) To spend some time with this child when her infant had been fed and put to bed.

(2)Involve this child in baby-care for his sister and reinforce him for the chores done by him. (3) Talk to this child about his help in bringing up his younger sister, who would love him, help him, and respect him in future. (4)Adopt 'Time-out' (withdrawal of attention, while undesirable behaviour is manifested and to differentially reinforce (reward him with some material or praise) when desirable behaviour was shown.

The teachers at school were requested to adopt (1) differential reinforcement and time-out; and (11) to keep him engaged in classroom activities, without sending him home or out of the class. With this programme, over a period of two months, the child's behaviour was modified.

Some Important tips:

- i. Psychological tests to be conducted to find out if the child is showing early manifestations of any other serious mental disorders. In such cases further expert opinion should be obtained from psychologists for the proper treatment of the child.
- Children should not be punished as they may get into depression and other emotional disturbance.

Case--Study-9

Child 'P':: Age: 8 years:: Sex: Male:: Class: IIIrd Standard

Problem: Abusive language, restricted to his family members (grandfather, grandmother, mother but not father) and some of his classmates.

Behavioural Analysis: His use of abusive language embarassed the parents and grand parents in the presence of guests at home. Some of his classmates often complained about the same behaviour to class teacher. The interview with family members revealed that the boy had learner particular abusive words from his grand mother who used to scold the servant/maid often using the same abusive words. The words "idiot" 'pauper abusive words. The words "idiot' 'pauper abusive words.

Behavioural Intervention: After recording the base line behaviour for J days, intervention was started with the help of class teacher and father. They were asked to reprimand, whenever the child used abusive language. The grand mother was instructed not to use abusive language in front of the boy. In fact, the grand father made the grand mother to say 'sorry' for using such words and praised her for saying sorry to the servant. There was marked decrease in using abusive words by the poy 'P' within a

week. The teacher praised him and asked his classmates to clap hands for his good language. At home, this type of appreciation was also repeated by the father. Now the boy is studying in the 4th standard.

The follow-up after two months revealed that the boy is maintaining his good language with the family members and classmates.

Case-Study-18

Child: 'Q :: Age: 5 Years:: Sex: Female:: Class: Ist Standard

Problem: Biting and hitting her classmates.

Behavioural Analysis: The girl, compared to her classmates is short in stature and often ridiculed for the same. Biting and hitting were confined only to her classmates. In fact, she was quite affectionate to her little sister aged 3 years. Her performance in examination was quite good and she never got less than 2nd or 3rd rank in the class. In addition, at times she used to pinch some of her classmates.

Behavioural Intervention: The teacher had selected some of the friends of 'Q' and asked them to prevent others ridiculing her physique. They used to openly say "Don t worry, we will protect you", and praise her "Ah, that is very good of you, today you have not hit anybody". In addition, the teacher also praised her in the class for being non-aggressive for a day or two. The students who were making fun of 'Q were asked to stand facing the wall in the class room by the teacher as mild punishment. By repeating these procedures for a week, the biting and hitting

behaviour of 'Q' reduced from 15 times to 1 or 2 times per period of 4 days within 10 days. The class teachers also asked all the students to list out the benefits of being 'short'. One of the benefits is that she may look young always etc. 'Q' became quite sober and all of her classmates accepted her as her 'hitting and biting' behaviours completely vanished.

A followup also showed the maintenance of the sober behaviour.

Case-Study-11

Child: 'R :: Age: 10 years:: Sex: Male:: Class: IVth Standard

Problem: Creating trouble in playground mostly arguing that he
is right.

Behavioural Analysis: In a game of cricket, he always caused trouble in arguing about a decision given against him by the umpire (student umpire) and most of his fellow students refused to accept them. At times he tended to become aggressive and violent and threatened to stop play or quit the game when they all opposed him. This was mainly because he did not take the game in a sporting attitude. At home too, he had a dominating behaviour in indoor games (like ludo and carrom) with family members.

Behavioural Intervention: A group discussion at the play ground concerning the purpose of games was held by the P.T.Master engaging all the students. The student R' was asked to speak in support of the courage in accepting defeat and the benefits derived. In fact the boy did very well in his arguments and the group members appreciated him by repeated applauses. But on the third day of the discussion the boy could not change to the desirable behaviour, instead he was adament in opposing the umpire's decision. So the group reprimanded and removed him from the game.

On subsequent days, the boy was not argumentative but was obeying the rules of the games. This desirable behaviour was reinforced by the group in making him the umpire of the game. He proved that he could be more efficient in his role as an umpire. His trouble making behaviour in the playground completely disappeared.

The interview with his family members revealed that he is no longer persistent in his views during indoor games but accepted defeat sportingly.

A follow up also revealed the maintenance of the adaptive behaviour pattern.

Case Study-12

Student: 'S':: Age: 10 years:: Sex: Male:: Class: IVth Standard Problem: Fights too often.

Behavioural Analysis: He used to fight often with his classmates both verbally and physically, feeling that he was being deliberately pushed around. Of late, he also quarrels with his teacher. He even accused her openly in class, of taking revenge on him for giving up the tuition classes he attended. This behaviour was also observed at home, particularly with his sister. He felt that his parents were partial to his sister.

Interviews with his parents, teachers and classmates revealed that this behaviour was on the increase and occurred at least once in a day. At the extreme level, he sometimes even cried loudly. At times, he felt remorse for his behaviour.

Behavioural Intervention: Group procedures like group discussion on managing the aggressive behaviour, dramatization of model behaviour (non-aggressive), chanting "Om Shanthi", "Om Shanthi", repeatedly for 5 to 10 minutes and relaxation through "Savasana" were used in modifying the aggressive behaviour of a group of children including the subject "S". In addition, physical activities like dancing, climbing, swimming and cycling were encouraged. The children who practised these activities were praised.

The teacher in the class, in situations of tension or aggression, taught them to bury their heads in-between their folded arms and count from 1 to 20.

The subject "S"'s feeling that discriminative treatment was given to him by his parents, and teachers was eliminated by repeated praise, reward (positive reinforcements) and other compliments, whenever he exhibited desirable behaviour (other than aggression). On counselling the parents, family members, teachers and classmates were able to effectively provide the above positive reinforcements.

"S" mastered relaxation through "Savasana" and improved his behaviour to such an extent that he was made the class leader.

This modified behaviour was maintained over a long period of time.

BIBLIOGRAPHY

- Axelord, S. (1977). <u>Behaviour modification for the classroom</u> teacher, London; McGraw Hill.
- Bandura, A. (1969). <u>Principles of behaviour modification</u>, New York: Holt rinehart and Winston.
- Bijou, S.W. & Ruiz, R. (1981). <u>Behaviour modification</u>:

 <u>Contribution to education</u>. Hillsdale, New Jersey: Lawrence Erlbaum Associates.
- Craigheed, E.E.: Kazdin, A.E & Moheney, M.J. (1976). <u>Behaviour modification: principles. issues and application</u>. Boston: Houghton Mifflin.
- Coleman, M.C. (1986). Behaviour disorders: Theory and practice. New Jersey: Prentice-Hall Inc, Englewood Cliffs.
- Dorr, D.(1972). An ounce of prevention. Mental hygiene. 56, 25-27.
- Doylegautry, W. (1975). Applied behaviour modification. New York: The C.V.Mosby Company.
- Gelfand, D.M. & Hartman, D.P. (1984). Child behaviour analysis and therepy. New York: Pergaman Press.
- James, A.P. (1973). <u>Behaviour modification</u>: <u>A practical quide</u> for teachers. London: University of London Press Ltd.
- Kaushik, S.S. (1988). Parents are teacherws. Delhi; Swatantra Bharat Press.
- Krumboltz, J.D. & Thoresen, C.D. (1969). <u>Behavioural counsel-ling</u>. <u>causes</u>, <u>and techniques</u>. New York: Holt Rinehart and Winston.
- Martin, G. & Pear, J. (1978). <u>Behaviour modification: What it is and how to do it</u>. New Jersey: Prentice-Hall Inc. Englewood Cliffs.
- Patterson, G.R. & Gullian, M.B. (1968). Living with children:

 New methods for parents and teachers. Illinois: Research
 Press.

- Saundera, M. (1979). Class control and behaviour problems: A quide for teachers. England: McGraw Hills.
- Sinha, S.P. (1991). Manual of behaviour modification for elementary teacher-educators and school teachers. New Delhi: National Council of Educational Research & Training.
- Vargas, J.S. (1977). Behavioural Psychology for teachers. London: Harper & Row.
- Walker, J.E. & Shea, T.M. (1984). <u>Behavioural management</u>: A <u>practical approach for educators</u>. Toronto: Mirror/Mosby College.
- Wheldall, K. (1987). The behaviourist in the classroom. London: Allen & Unwin.
- William, L.M. (1972). <u>Behaviour modification</u>: <u>An overview</u>. London: Harper and Row.
- Wolpe, J. (1958). Psychotherapy by reciprocal inhibition-California: Stanford University Press.

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